U.S.C. § 119(e) and 35 U.S.C. § 120. By the current amendment, Applicants have added the requested paragraph concerning the priority information to the disclosure.

The Examiner has rejected claims 1-30 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. Applicants have canceled claims 1-30 and, thus, respectfully submit that this rejection is rendered moot. New claims 31-48 have been added by this amendment. Applicants respectfully submit that the new claims fully comply with 35 U.S.C. §112.

The Examiner has rejected claim 29 under 35 U.S.C. § 102(b) as being anticipated by Cockburn et al. in *Journal of the Chemical Society, Dalton Transactions*, Vol. 4 (1973), pp. 104-410. Applicants have canceled claim 29 and, thus, respectfully submit that this rejection is rendered moot.

The Examiner has rejected claims 1-5, 7-9 and 27-30 under 35 U.S.C. § 102(e) as being anticipated by Igarashi et al. (U.S. 2001/0019782 A1). Claims 3, 4, 29 and 30 were included in this rejection subject to clarification. Applicants have canceled claims 1-5, 7-9 and 27-30 and, thus, respectfully submit that this rejection is rendered moot. Applicants respectfully submit that new claims 31-48, added by this amendment, are not anticipated by Igarashi et al. Withdrawal of this rejection is respectfully requested.

The Examiner has rejected claims 1-5 and 27-30 under 35 U.S.C. § 102(e) as being anticipated by Grushin et al. (U.S. 2002/0121638 A1). Claims 4 and 30 were included in this

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rejection subject to clarification. Applicants have canceled claims 1-5 and 27-30 and, thus, respectfully submit that this rejection is rendered moot. Applicants respectfully submit that new claims 31-48, added by this amendment, are not anticipated by Grushin et al. Withdrawal of this rejection is respectfully requested.

The Examiner has rejected claims 1-30 under 35 U.S.C. § 103(a) as being unpatentable over Igarashi et al. (U.S. 2001/0019782 A1) or Grushin et al. (U.S. 2002/0121638 A1). Applicants have canceled claims 1-30 and, respectfully submit that new claims 31-48, added by this amendment, are not rendered obvious by Igarashi et al. or Grushin et al. It is respectfully submitted that this rejection should be withdrawn.

To render a claim obvious, the prior art must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Moreover, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the modification must be found in the prior art and not in the Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The claims as presently amended are directed to an organic light emitting device having an emissive layer comprising an organometallic compound, wherein the organometallic compound consists of a metal having an atomic number of at least 72; at least one mono-anionic, bidentate, carbon coordination ligand bound to the metal; and at least one non mono-anionic, bidentate, carbon coordination ligand bound to the metal. The mono-anionic, bidentate, carbon

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coordination ligand and/or the non mono-anionic, bidentate, carbon coordination ligand is selected from the specified groups. Neither Igarashi et al. nor Grushin et al. teaches or suggests an organic light emitting device having an emissive layer comprising an organometallic compound having the mono-anionic, bidentate, carbon coordination ligand(s) and/or the non mono-anionic, bidentate, carbon coordination ligand(s) as required by the pending claims. Accordingly, it is respectfully submitted that the claims are not rendered obvious by Igarashi et al. or Grushin et al. Applicants respectfully submit that the § 103(a) rejections based on Igarashi et al. or Grushin et al. should therefore be withdrawn.

Claims 3 and 29 have been provisionally rejected under the judicially created doctrine of obvious-type double patenting in view of co-pending application No. 09/637,776. Claims 1, 2, 5, 8, 27 and 29 have been provisionally rejected under the judicially created doctrine of obvious-type double patenting in view of co-pending application No. 09/981,496. Claims 1, 2, 3, 5, 8, 27 and 29 have been canceled. If any of the new claims 31-48 are provisionally rejected under judicially created doctrine of obvious-type double patenting, Applicants would consider the filing of a terminal disclaimer at that time.

CONCLUSION

In view of the foregoing amendment and remarks, Applicants respectfully submit that all of the pending claims of the subject application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

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Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

KENYON & KENYON

Dated: June 12, 2003

By: _____

Kevin T. Godlewski
Reg. No. 47,598

One Broadway
New York, NY 10004
(212) 425-7200

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend the Application as follows:

IN THE SPECIFICATION:

In the specification, prior to the first paragraph, please add the following paragraph:

-- This is a continuation-in-part of application No. 09/637,766, filed August 11, 2000, and claims the benefit of provisional application No. 60/283,814, filed on April 13, 2001. --

IN THE CLAIMS:

Please cancel claims 1-30 without prejudice.

Please add new claims 31-48:

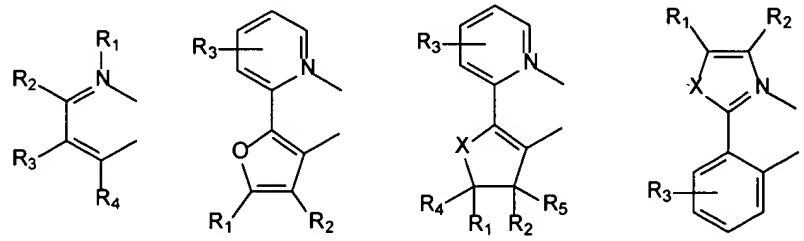
31. An organic light emitting device having an emissive layer comprising an organometallic compound, wherein the organometallic compound consists of

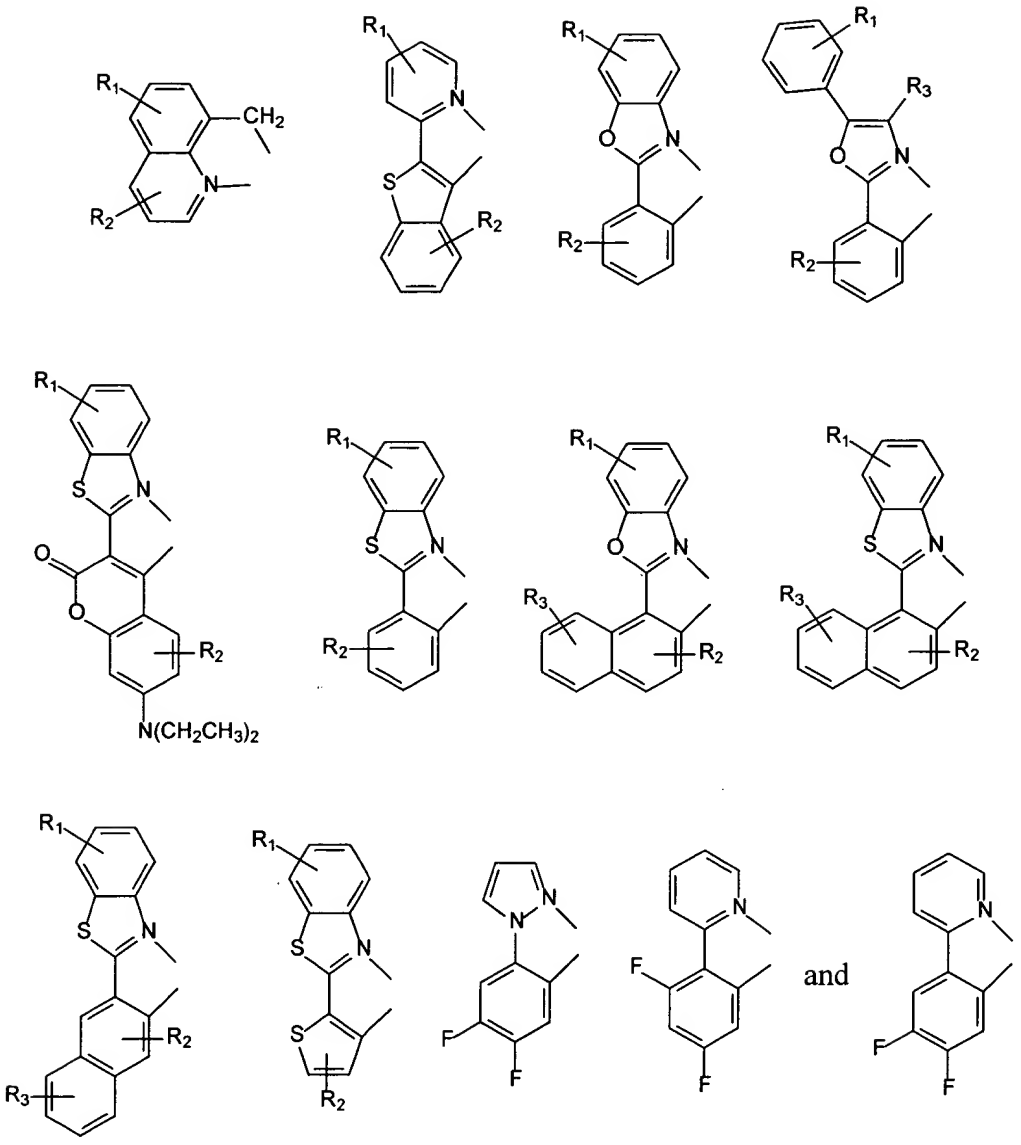
a metal having an atomic number of at least 72;

at least one mono-anionic, bidentate, carbon coordination ligand bound to the metal; and

at least one non mono-anionic, bidentate, carbon coordination ligand bound to the metal,

wherein the mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

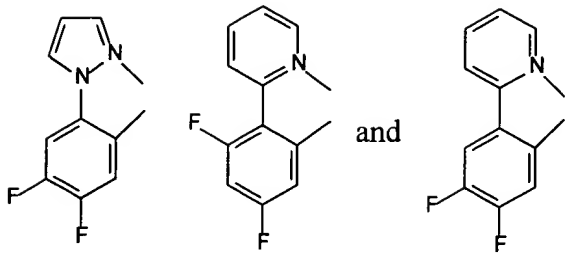




wherein X = S or O; and

R_1, R_2, R_3, R_4 and R_5 are, independently, hydrogen, halogen, alkyl, or aryl.

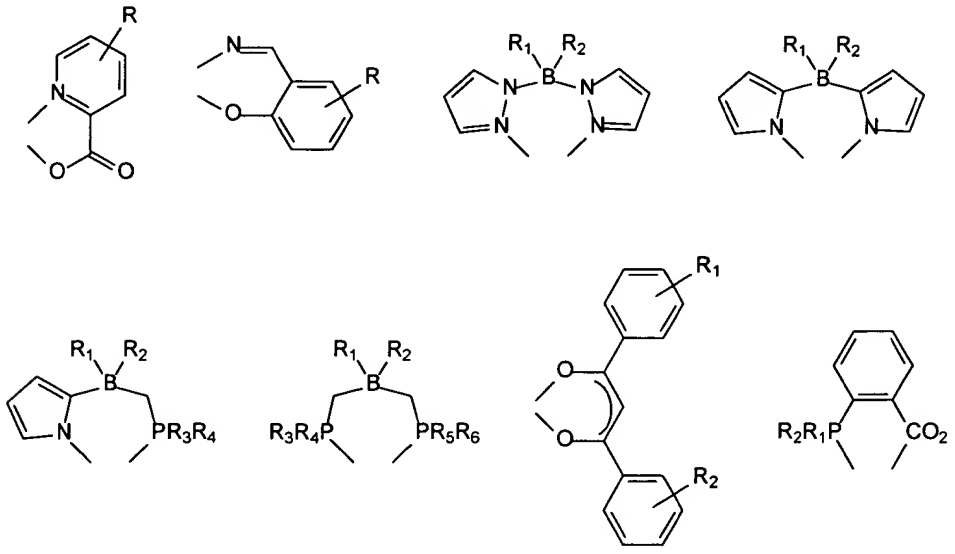
32. The organic light emitting device of claim 31, wherein the mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

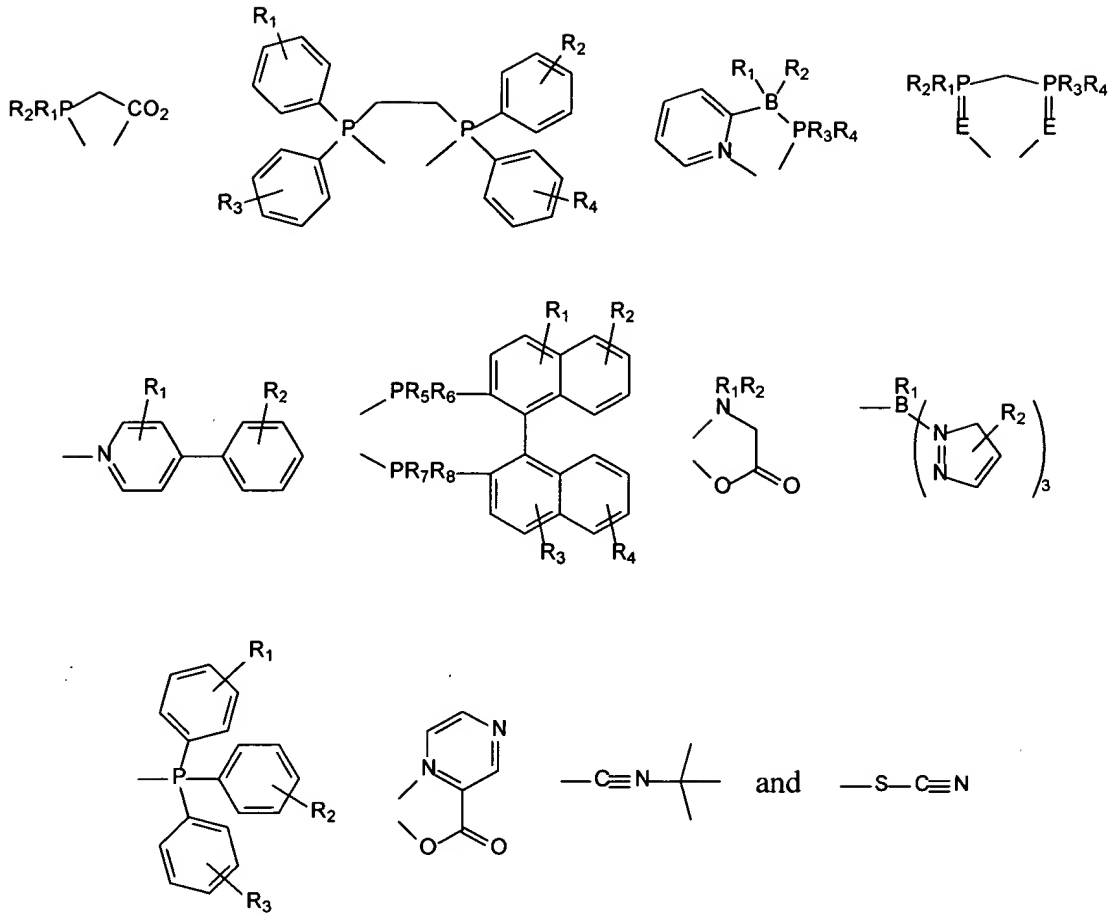


33. The organic light emitting device of claim 31, wherein the heavy metal is selected from the group consisting of Os, Ir, Pt and Au.

34. The organic light emitting device of claim 33, wherein the heavy metal is selected from the group consisting of Ir and Pt.

35. The organic light emitting device of claim 31, wherein the non mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

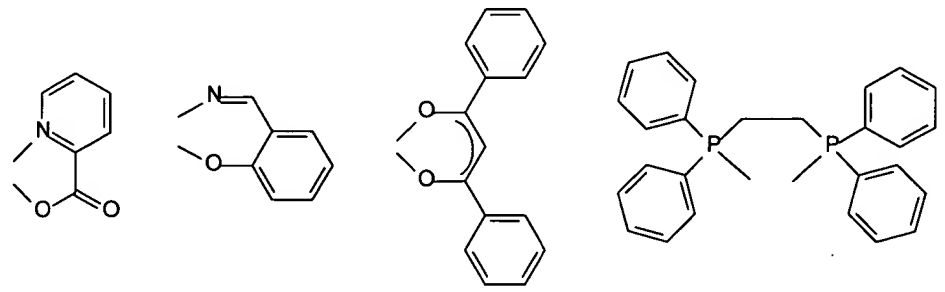


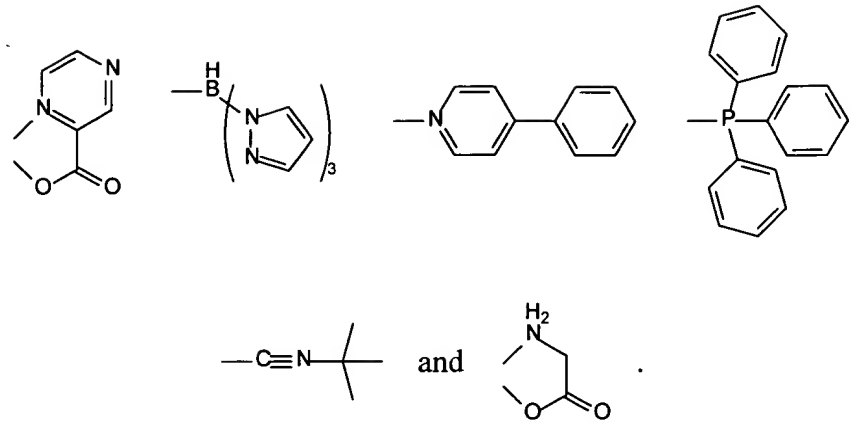


wherein E is selected from the group consisting of O, S, Se and Te; and

R_1, R_2, R_3, R_4, R_5, R_6, R_7 and R_8 are, independently, hydrogen, halogen, alkyl, or aryl.

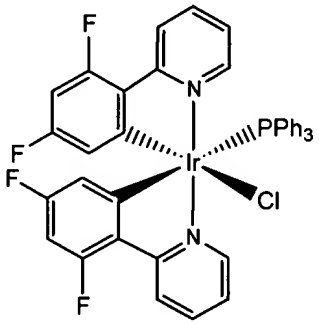
36. The organic light emitting device of claim 35, wherein the non mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

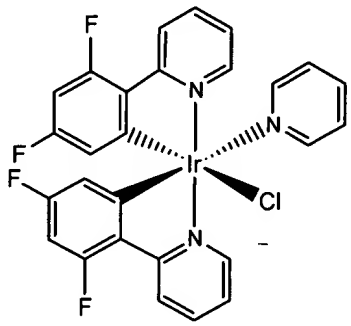


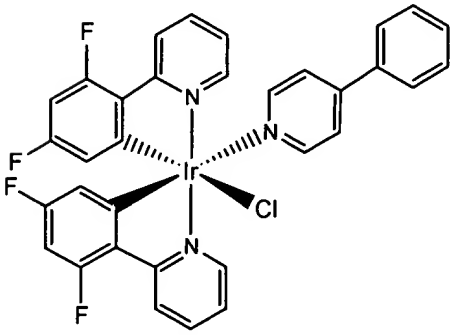


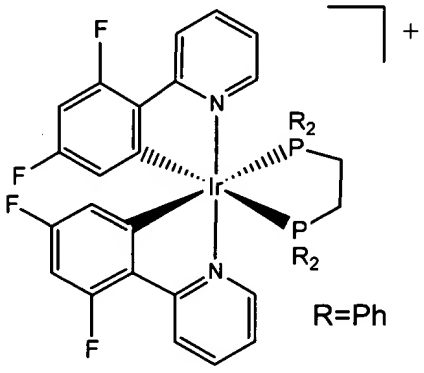
and

34. The organic light emitting device of claim 31, wherein the organometallic compound has the chemical structure represented by a formula selected from the group consisting of

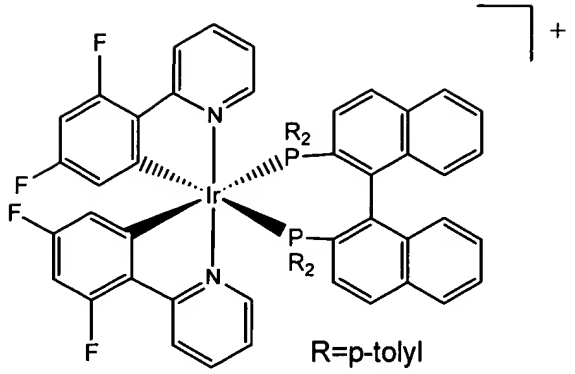




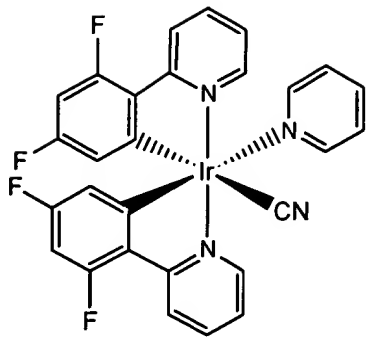


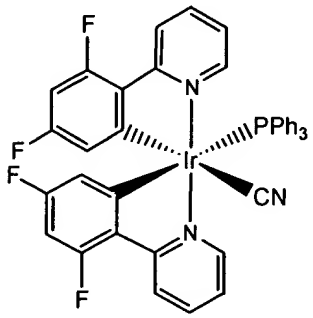


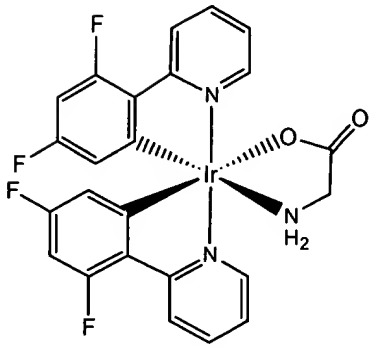
R=Ph

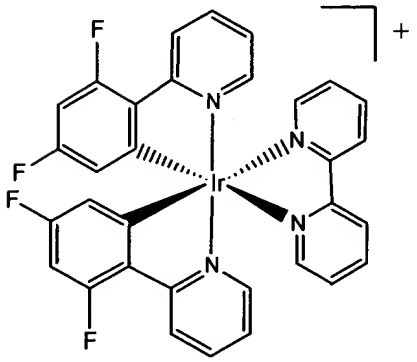

F
N
R2
P
Ir
F
F
P
R2
N
F
+

R=p-tolyl


F
N
N
Ir
F
F
CN
N
F


F
N
PPh3
F
Ir
F
CN
N
F


F
N
O
O
F
Ir
F
N
H2
N
F


F
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Ir
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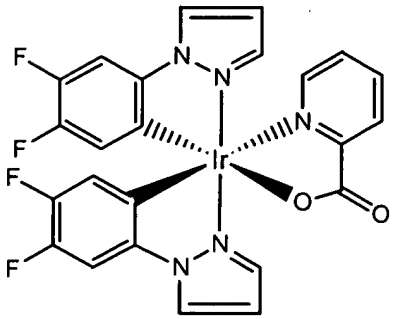
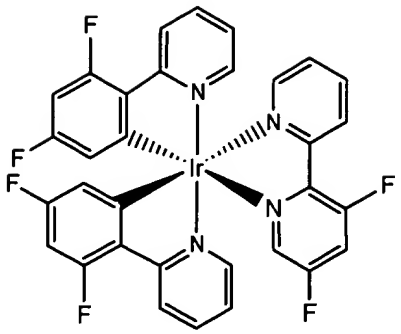
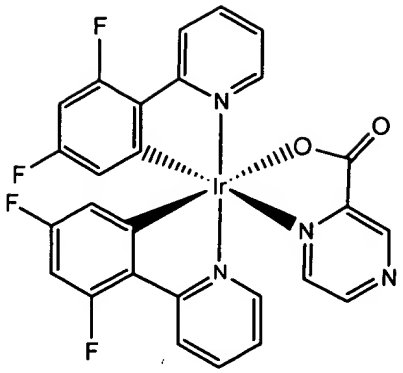
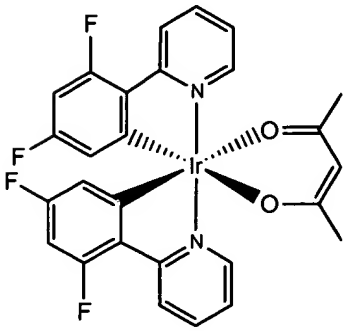
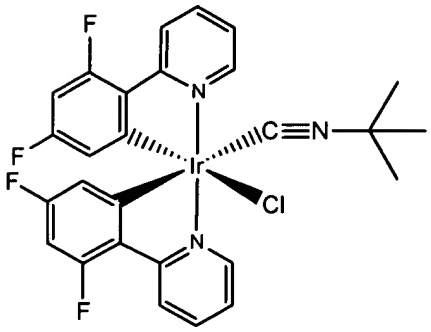
F
+

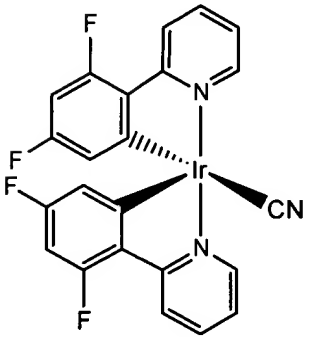

N
N
F
F
N
F
Ir
F
O
O
F
N
N

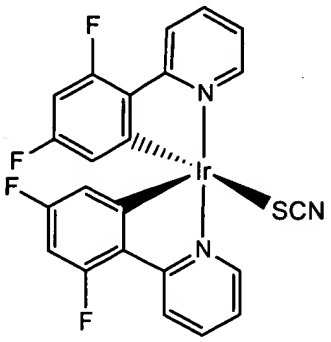


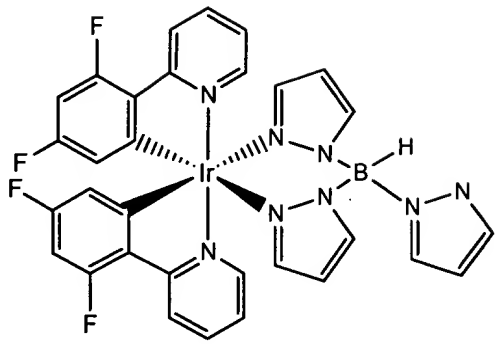


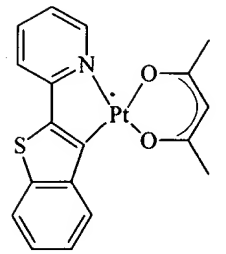
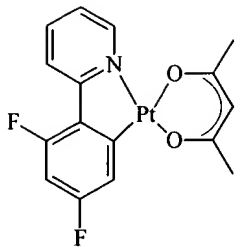
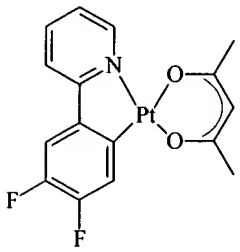
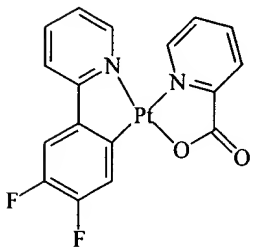













and


35. The organic light emitting device of claim 31, wherein the emissive layer further comprises:

a host material having a lowest triplet excited state having a first decay rate of less than about 1 per second; wherein the organometallic compound is present as a guest material dispersed in the host material, the organometallic compound having a lowest triplet excited state having a radiative decay rate of greater than about $1x10^5$ per second and wherein the energy level of the lowest triplet excited state of the host material is lower than the energy level of the lowest triplet excited state of the organometallic compound.

36. The organic light emitting device of claim 35, wherein the energy difference between the lowest triplet excited state of the organometallic compound and a corresponding relaxed stated of the organometallic compound has a corresponding wavelength of about 420 nm to 480 nm for blue light emission.

37. The organic light emitting device of claim 35, wherein the energy difference between the lowest triplet excited state of the organometallic compound and a corresponding relaxed stated of the organometallic compound has a corresponding wavelength of about 480 nm to 510 nm for

aqua-blue light emission.

38. The organic light emitting device of claim 35, wherein the host material has a bandgap with an energy difference corresponding to about 470 nm and the organometallic compound has a lowest triplet excited state at an energy level at about 450 nm.

39. The organic light emitting device of claim 35, wherein the host material is an electron transport layer.

40. The organic light emitting device of claim 35, wherein the host material conducts electrons primarily through hole transmission.

41. The organic light emitting device of claim 35, wherein the ratio of the host material and organometallic compound decay rates is at least about 1:1000 to about 5:1000.

42. The organic light emitting device of claim 35, wherein the host material is TPD.

43. The organic light emitting device of claim 35, wherein a plurality of organometallic compounds are dispersed in the host material.

44. An organic light emitting device having an emissive layer comprising an organometallic compound, wherein the organometallic compound consists of

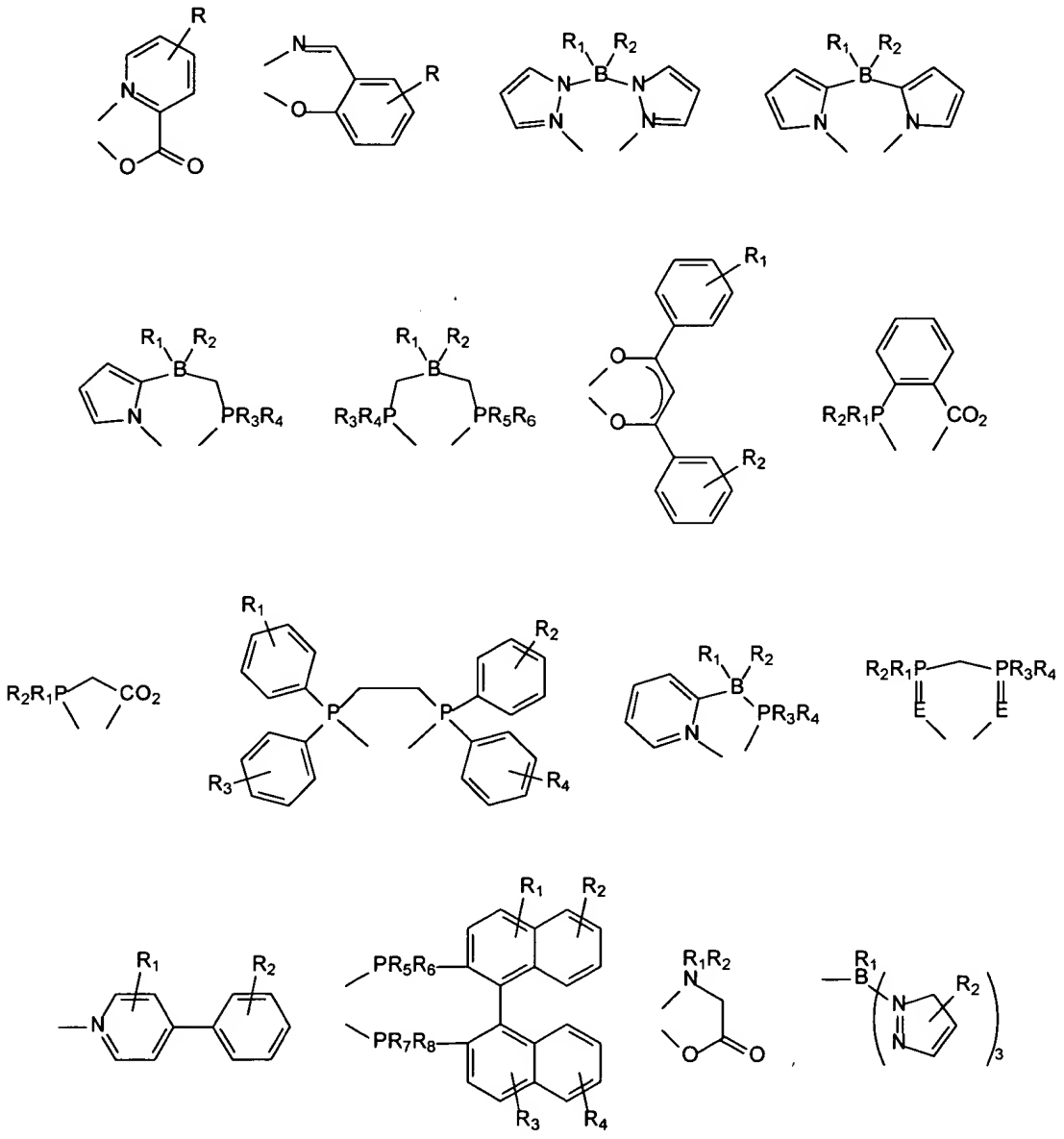
a metal having an atomic number of at least 72;

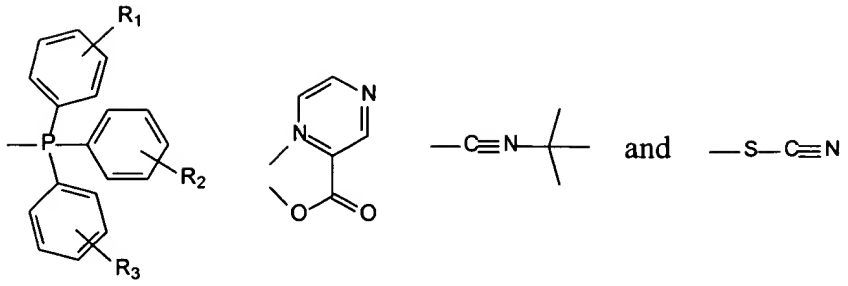
at least one mono-anionic, bidentate, carbon coordination ligand bound to the metal;

and

at least one non (mono-anionic, bidentate, carbon coordination) ligand bound to the metal,

wherein the mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

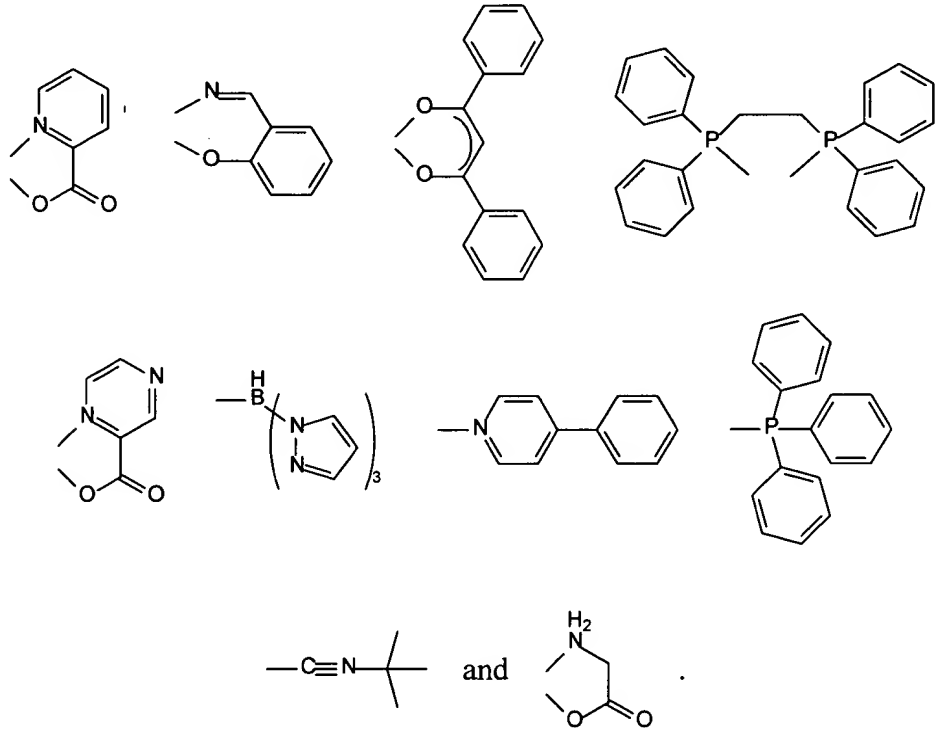




wherein E is selected from the group consisting of O, S, Se and Te; and

R_1, R_2, R_3, R_4, R_5, R_6, R_7 and R_8 are, independently, hydrogen, halogen, alkyl, or aryl.

45. The organic light emitting device of claim 44, wherein the non mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of

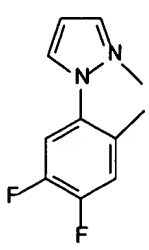


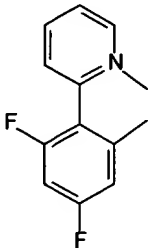
46. The organic light emitting device of claim 44, wherein the heavy metal is selected from the group consisting of Os, Ir, Pt and Au.

47. The organic light emitting device of claim 46, wherein the heavy metal is selected from the

group consisting of Ir and Pt.

48. The organic light emitting device of claim 44, wherein the mono-anionic, bidentate, carbon coordination ligand is selected from the group consisting of





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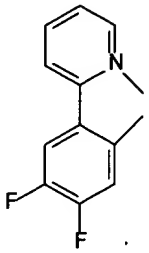

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